

ABSTRACT OF THE DISCLOSURE

A charged-particle beam exposure apparatus for exposing a member to be exposed to a charged particle beam with a pattern includes memories (902 - 905) for storing a plurality of control data for controlling reference dose data of the charged particle beam in accordance with the incident position of the charged particle beam on the member to be exposed, a selector (907) for selecting any one of the plurality of control data stored in the memories, and an exposure unit for controlling the reference dose data of the charged particle beam for each irradiation position on the basis of the control data selected by the selector, thereby exposing the member to be exposed with the pattern. The charged-particle beam exposure apparatus rapidly performs proper proximity effect correction to expose the member to be exposed with the pattern.